AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 1, line 19 with the following paragraph:

--Frequently, because hardness and ductility are generally inverse material properties, materials that are less than full-hard are used to provide toughness to the blade. Unfortunately, ~~the integrity of~~ the cutting edge of a surgical tool fabricated from materials of lesser hardness [[are]]is susceptible to dulling during the surgical procedure.--

Please replace the paragraph beginning at page 1, line 28 with the following paragraph:

--Surgical cutting edges produced from materials having a high porosity are prone to corrosion and therefore dulling of the cutting surface due to this corrosion. Additionally, surgical tools fabricated from materials having a high porosity are also prone to pathogen entrapment and or attachment. Contaminated surgical tools will infect a patient during surgery. It has been recently reported that the transmissible agent of CreutzfeldtCreurzeldt-Jakob disease (CJD) is not readily destroyed by conventional sterilization of surgical instruments.--

Please replace the paragraph beginning at page 3, line 30 with the following paragraph:

--Fig. 2 is a diagrammatic representation of a surgical tool according to the invention being in the form an ~~osteomtome~~ osteotome having a cutting edge that is 9mm wide with sub-ferrous surface porosity;--

Please replace the paragraph beginning at page 4, line 1 with the following paragraph:

--Fig. 3 is a diagrammatic representation of a surgical tool according to the invention being in the form of an ~~osteomtome~~ osteotome having a cutting edge that is 5mm wide with sub-ferrous surface porosity;--

Please replace the paragraph beginning at page 4, line 4 with the following paragraph:

--Fig. 4 is a diagrammatic representation of a surgical tool according to the invention being in the form of an ~~osteomtome~~ osteotome having a cutting edge that is 2mm wide with sub-ferrous surface porosity;--

Please replace the paragraph beginning at page 5, line 12 with the following paragraph:

--B. "Sub Ferrous Porosity" shall mean having a porosity that is less than that of stainless steel. Particular note is made with surfaces having fewer than about 10 pores/sqcm greater than about 15 nm and in some instances fewer than about 10 pores/sqcm greater than about 10nm and more particularly fewer than about 10 pores/ sqcm greater than about 5 angstroms, and about 50 ~~anstroms;~~angstroms;--

Please replace the paragraph beginning at page 5, line 18 with the following paragraph:

--D. ~~"Piron"~~ "Prion" shall be broadly construed to mean any protein material having a molecular size of approximately 35-50 angstroms and a molecular weight of approximately 33-35 [[Kda]]KDa;--

Please replace the paragraph beginning at page 5, line 21 with the following paragraph:

--E. ~~"Piron~~ "Prion Loading" shall mean a concentration of ~~pirons~~ prions having a sufficient concentration to constitute an infecting dose;--

Please replace the paragraph beginning at page 5, line 25 with the following paragraph:

--A surgical tool embodying the invention, shown in FIGS. 1-14, comprises two ~~parts~~ parts: a body portion and a cutting surface that are both constructed from a nickel

carbide material. In some particular embodiments surgical tools will be comprised of multiple parts. It will be understood that in some specific embodiments, the gauge of the material is chosen so as to provide sufficient flexibility yet preventing deformation of the surgical tool in normal use, and providing the desired spring rate, according to the intended use of the tool.--

Please replace the paragraph beginning at page 6, line 18, with the following paragraph:

--Prior art surgical tools have been traditionally constructed from stainless steel having a typical density of about 7-8g/cm^3 and a porous surface. These traditional stainless steel tools are cleaned and subjected to a "sterilization" procedure prior to surgical use. It has been recently discovered that certain pathogens survive typical sterilization. Specifically, the transmissible agent of Creutzfeldt~~Creurzfeldt~~-Jakob disease (CJD) is not readily destroyed by conventional sterilization of stainless steel surgical tools, as noted above. The ~~surface~~ surfaces of stainless steel surgical tools, while appearing to be smooth and non-porous are in fact, at a microscopic level, porous. Without being bound to any particular theory, it is thought that this porosity accommodates the entrapment or binding of some pathogens and subsequent contamination of patients. Once again, without being bound to any particular theory, this binding may be in the form of mechanical entrapment within the surface pores or it may be in the form of promoting chemical binding and attachment using conventional chemical bonds. For those pathogens, such as prions, that are resistant to sterilization, a high surface porosity allows retention, such as mechanical entrapment of these microscopic pathogens.--

Please replace the paragraph beginning at page 7, line 1 with the following paragraph:

--Prions typically have a molecular size of approximately 35 to 50 angstroms and a molecular weight of approximately 33-35 [[Kda]]KDa. The mechanical entrapment of prions within surface pores of surgical instruments is increased as the surface porosity is increased. This increase in surface porosity causes a surface to achieve a prion loading.

This prion loading can be substantially reduced by decreasing the porosity of the surface of a surgical tool.--

Please replace the paragraph beginning at page 7, line 11 with the following paragraph:

--Additionally, the mechanical entrapment of prions and other sub-microscopic size pathogens [[are]]is greatly reduced ~~and~~, and the pathogens are subject to physical removal as the porosity of the surface is ~~decrease.~~ decreased. Without being bound by any particular theory, it is thought that decontamination by mechanical means, such as washing, is increased in its effectiveness as the porosity of the surface is decreased. Mechanical washing of the instrument with compounds such as formaldehyde, benzene, ethanol and other compounds known in the art is significantly more effective if ~~porous~~ the porosity of entrapment surfaces [[are]]is diminished.--

Please replace the paragraph beginning at page 8, line 11 with the following paragraph:

--It has also been found that the nickel carbide material having a high density when used within the body of the surgical instrument imparts a tactile feel to the instrument that is not possible with lower density materials. The high density of the carbide material advantageously gives the surgeon a tool having a substantially greater tactile feel [[then]]than that of lighter weight materials.--

Please replace the paragraph beginning at page 8, line 22 with the following paragraph:

--Turning to Fig 2, a diagrammatic representation of a surgical tool according to the invention being in the form of an ~~osteomtome~~ osteotome 121 having a cutting edge 122 that is 9mm wide is shown. The ~~osteomtome~~ osteotome 121 has a handle 123 fabricated from nickel carbide. Affixed to the handle 123 is the cutting edge 122 also fabricated from nickel carbide. The nickel carbide forming the cutting edge 122 has a desired density and sub-ferrous porosity.--

Please replace the paragraph beginning at page 8, line 27 with the following paragraph:

--Turning to Fig 3, a diagrammatic representation of a surgical tool according to the invention being in the form of an ~~osteomtome~~ osteotome 131 having a cutting edge 132 that is 5mm wide is shown. The ~~osteomtome~~ osteotome 131 has a handle 133 fabricated from nickel carbide. Affixed to the handle 133 is the cutting edge 132 also fabricated from nickel carbide. The nickel carbide forming the cutting edge 132 has a desired density and sub-ferrous porosity.--

Please replace the paragraph beginning at page 9, line 1 with the following paragraph:

--Turning to Fig. 4, a diagrammatic representation of a surgical tool according to the invention being in the form of an ~~osteomtome~~ osteotome 141 having a cutting edge 142 that is 2mm wide is shown. The ~~osteomtome~~ osteotome 141 has a handle 143 fabricated from nickel carbide. Affixed to the handle 143 is the cutting edge 142 also fabricated from nickel carbide. The nickel carbide forming the cutting edge 142 has a desired density and sub-ferrous porosity.--

Please replace the paragraph beginning at page 9, line 11 with the following paragraph:

--Turning to Fig. 6, a diagrammatic representation of a surgical tool according to the invention being in the form of an ~~osteomtome~~ osteotome 161 with a double guard that is 10mm wide having a cutting edge 162 is shown. The ~~osteomtome~~ osteotome 161 has a handle 163 fabricated from nickel carbide. Affixed to the handle 163 is the cutting edge 162 also fabricated from nickel carbide. The nickel carbide forming the cutting edge 162 has a desired density and sub-ferrous porosity.--

Please replace the paragraph beginning at page 9, line 17 with the following paragraph:

--Turning to Fig. 7, a diagrammatic representation of a surgical tool according to the invention being in the form of a guarded ~~osteomtome~~ osteotome 6mm wide 171 having a cutting edge 172 is shown. The ~~osteomtome~~ osteotome 171 has a handle 173 fabricated from nickel carbide. Affixed to the handle 173 is the cutting edge 172 also fabricated from nickel carbide. The nickel carbide forming the cutting edge 172 has a desired density and sub-ferrous porosity.--

Please replace the paragraph beginning at page 9, line 27 with the following paragraph:

--Turning to Fig. 9, a diagrammatic representation of a surgical tool according to the invention being in the form of a guarded ~~osteomtome~~ osteotome 6mm wide curved left 191 having a cutting edge 192 is shown. The ~~osteomtome~~ osteotome 191 has a handle 193 fabricated from nickel carbide. Affixed to the handle 193 is the cutting edge 192 also fabricated from nickel carbide. The nickel carbide forming the cutting edge 192 has a desired density and sub-ferrous porosity.--

Please replace the paragraph beginning at page 11, line 3 with the following paragraph:

--While the foregoing describes use of nickel carbide in surgical tools in the field of surgery, the use of nickel carbide may find appropriate uses such [[at]]as surgical appliances and medical fastening systems requiring a high density low porosity material that is resistant to pathogen growth. In particular it has been found that surgical drills formed from carbide material dissipate heat in a much more efficient manner than that of other materials. This efficient dissipation of heat reduces heat build-up and thus avoids tissue damage caused by excessive heat. Particular reference is made to bone drill bits.--